

RAW SEQUENCE LISTING

**The Biotechnology Systems Branch of the Scientific and Technical
Information Center (STIC) no errors detected.**

Application Serial Number:

10/690, 396A

Source:

JFW/6

Date Processed by STIC:

03/02/2007

ENTERED

CRF Errors Edited by the STIC Systems Branch

Serial Number: 10/690,396A

CRF Edit Date: 03/02/2007
Edited by: DA

___ **Realigned nucleic acid/amino acid numbers/text in cases where the sequence text "wrapped" to the next line**

___ **Corrected the SEQ ID NO. Sequence numbers edited were:**

___ **Inserted or corrected a nucleic number at the end of a nucleic line. SEQ ID NO's edited:**

___ **Deleted: ___ invalid beginning/end-of-file text ; ___ page numbers**

___ **Inserted mandatory headings/numeric identifiers, specifically:**

___ **Moved responses to same line as heading/numeric identifier, specifically:**

___ **Other:**



IFW16

RAW SEQUENCE LISTING

DATE: 03/02/2007

PATENT APPLICATION: US/10/690,396A

TIME: 11:03:19

Input Set : A:\pto.da.txt

Output Set: N:\CRF4\03012007\J690396A.raw

5 <110> APPLICANT: Wigler, Michael H.
 6 Sorge, Joseph A.
 8 <120> TITLE OF INVENTION: Method for generating libraries of
 9 antibody genes comprising amplification of diverse antibody
 10 DNAs and methods for using these libraries for the
 11 production of diverse antigen combining molecules
 16 <130> FILE REFERENCE: STRATAG.7C2DV2C1
 C--> 18 <140> **CURRENT APPLICATION NUMBER: US/10/690,396A**
 19 <141> CURRENT FILING DATE: 2003-10-20
 21 <150> PRIOR APPLICATION NUMBER: US 08/315,269
 22 <151> PRIOR FILING DATE: 1994-09-29
 24 <150> PRIOR APPLICATION NUMBER: US 07/919,370
 25 <151> PRIOR FILING DATE: 1992-07-23
 27 <150> PRIOR APPLICATION NUMBER: US 07/464,350
 28 <151> PRIOR FILING DATE: 1990-01-11
 30 <150> PRIOR APPLICATION NUMBER: US 08/997,195
 31 <151> PRIOR FILING DATE: 1997-12-23
 33 <150> PRIOR APPLICATION NUMBER: US 09/439,732
 34 <151> PRIOR FILING DATE: 1999-11-12
 36 <150> PRIOR APPLICATION NUMBER: PCT/US91/00209
 37 <151> PRIOR FILING DATE: 2001-04-26
 39 <160> NUMBER OF SEQ ID NOS: 7
 41 <170> SOFTWARE: FastSEQ for Windows Version 4.0
 43 <210> SEQ ID NO: 1
 44 <211> LENGTH: 313
 45 <212> TYPE: DNA
 46 <213> ORGANISM: Artificial Sequence
 48 <220> FEATURE:
 49 <223> OTHER INFORMATION: Synthesized Nucleotide Sequence
 51 <220> FEATURE:
 52 <221> NAME/KEY: CDS
 53 <222> LOCATION: (1)...(312)
 55 <400> SEQUENCE: 1
 56 agt cag tcc ttc cca aat gtc ttc ccc ctc gtc tcc tgc gag agc ccc 48
 57 Ser Gln Ser Phe Pro Asn Val Phe Pro Leu Val Ser Cys Glu Ser Pro
 58 1 5 10 15
 60 ctg tct gat aag aat ctg gtg gcc atg ggc tgc cta gcc cgg gac ttc 96
 61 Leu Ser Asp Lys Asn Leu Val Ala Met Gly Cys Leu Ala Arg Asp Phe
 62 20 25 30
 64 ctg ccc agc acc att tcc ttc acc tgg aac tac cag aac aac act gaa 144
 65 Leu Pro Ser Thr Ile Ser Phe Thr Trp Asn Tyr Gln Asn Asn Thr Glu
 66 35 40 45
 68 gtc atc cag ggt atc aga acc ttc cca aca ctg agg aca ggg ggc aag 192

RAW SEQUENCE LISTING

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Input Set : A:\pto.da.txt

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```

69 Val Ile Gln Gly Ile Arg Thr Phe Pro Thr Leu Arg Thr Gly Gly Lys
70      50                      55                      60
72 tac cta gcc acc tcg cag gtg ttg ctg tct ccc aag agc atc ctt gaa 240
73 Tyr Leu Ala Thr Ser Gln Val Leu Leu Ser Pro Lys Ser Ile Leu Glu
74 65      70                      75                      80
76 ggt tca gat gaa tac ctg gta tgc aaa atc cac tac gga ggc aaa aac 288
77 Gly Ser Asp Glu Tyr Leu Val Cys Lys Ile His Tyr Gly Gly Lys Asn
78      85                      90                      95
80 aga gat ctg cat gtg ccc att cca g 313
81 Arg Asp Leu His Val Pro Ile Pro
82      100
85 <210> SEQ ID NO: 2
86 <211> LENGTH: 104
87 <212> TYPE: PRT
88 <213> ORGANISM: Artificial Sequence
90 <220> FEATURE:
91 <223> OTHER INFORMATION: Synthesized Peptide
93 <400> SEQUENCE: 2
94 Ser Gln Ser Phe Pro Asn Val Phe Pro Leu Val Ser Cys Glu Ser Pro
95 1      5      10      15
96 Leu Ser Asp Lys Asn Leu Val Ala Met Gly Cys Leu Ala Arg Asp Phe
97      20      25      30
98 Leu Pro Ser Thr Ile Ser Phe Thr Trp Asn Tyr Gln Asn Asn Thr Glu
99      35      40      45
100 Val Ile Gln Gly Ile Arg Thr Phe Pro Thr Leu Arg Thr Gly Gly Lys
101      50      55      60
102 Tyr Leu Ala Thr Ser Gln Val Leu Leu Ser Pro Lys Ser Ile Leu Glu
103 65      70      75      80
104 Gly Ser Asp Glu Tyr Leu Val Cys Lys Ile His Tyr Gly Gly Lys Asn
105      85      90      95
106 Arg Asp Leu His Val Pro Ile Pro
107      100
110 <210> SEQ ID NO: 3
111 <211> LENGTH: 313
112 <212> TYPE: DNA
113 <213> ORGANISM: Artificial Sequence
115 <220> FEATURE:
116 <223> OTHER INFORMATION: Synthesized Nucleotide Sequence
118 <220> FEATURE:
119 <221> NAME/KEY: misc_feature
120 <222> LOCATION: 3, 6, 9, 12, 15, 18, 21, 24, 27, 30, 33, 36, 39, 42, 45,
121      48, 51, 54, 57, 60, 63, 66, 69, 72, 75, 78, 81, 84, 87,
122      90, 93, 96, 99, 102, 105, 108, 111, 114, 117, 120, 123,
123      126, 129, 132, 135, 138, 141, 144, 147, 150, 153, 156, 159,
124      162
125 <223> OTHER INFORMATION: n = A,T,C or G
127 <220> FEATURE:
128 <221> NAME/KEY: misc_feature
129 <222> LOCATION: 165, 168, 171, 174, 177, 180, 183, 186, 189, 192, 195, 198,

```

RAW SEQUENCE LISTING

DATE: 03/02/2007

PATENT APPLICATION: US/10/690,396A

TIME: 11:03:19

Input Set : A:\pto.da.txt

Output Set: N:\CRF4\03012007\J690396A.raw

```

130      201, 204, 207, 210, 213, 216, 219, 222, 225, 228, 231, 234,
131      237, 240, 243, 246, 249, 252, 255, 258, 261, 264, 267, 270,
132      273, 276, 279, 282, 285, 288, 291, 294, 297, 300, 303
133 <223> OTHER INFORMATION: n = A,T,C or G
135 <220> FEATURE:
136 <221> NAME/KEY: misc_feature
137 <222> LOCATION: 306, 309, 312
138 <223> OTHER INFORMATION: n = A,T,C or G
140 <400> SEQUENCE: 3
W--> 141 agncantcnt tncnaangt nttncnctn gtntcntgng anagncnct ntnganaan 60
W--> 142 aactngtng cnatngctg nctngcncgn ganttnctnc cnagnacnat ntcnttnacn 120
W--> 143 tgnaantanc anaanaanac ngangtnatn canggnatna gnacnttncc nacnctnagn 180
W--> 144 acnggggna antanctngc nacntncan gtnttnctnt cncnaanag natnctngan 240
W--> 145 ggntcngang antanctngt ntgnaanatn cantanggng gnaanaanag nganctncan 300
W--> 146 gtncnctnc cng 313
148 <210> SEQ ID NO: 4
149 <211> LENGTH: 8
150 <212> TYPE: PRT
151 <213> ORGANISM: Artificial Sequence
153 <220> FEATURE:
154 <223> OTHER INFORMATION: Synthesized Nucleotide Sequence
156 <400> SEQUENCE: 4
157 Ala Met Gly Cys Leu Ala Arg Asp
158 1 5
161 <210> SEQ ID NO: 5
162 <211> LENGTH: 24
163 <212> TYPE: DNA
164 <213> ORGANISM: Artificial Sequence
166 <220> FEATURE:
167 <223> OTHER INFORMATION: Synthesized Nucleotide Sequence
169 <400> SEQUENCE: 5
170 gccatgggct gcctagcccg ggac 24
172 <210> SEQ ID NO: 6
173 <211> LENGTH: 24
174 <212> TYPE: DNA
175 <213> ORGANISM: Artificial Sequence
177 <220> FEATURE:
178 <223> OTHER INFORMATION: Synthesized Nucleotide Sequence
180 <400> SEQUENCE: 6
181 gccatgggct gcctagcgcg cgac 24
183 <210> SEQ ID NO: 7
184 <211> LENGTH: 104
185 <212> TYPE: PRT
186 <213> ORGANISM: Artificial Sequence
188 <220> FEATURE:
189 <221> NAME/KEY: VARIANT
190 <222> LOCATION: 1, 2, 4, 6, 8, 13-15, 19-21, 25, 27, 31, 32, 35, 37, 39,
191 41-46, 48, 50, 51, 53, 54, 56, 60, 64, 65, 70, 72, 76-78,
192 80, 83-85, 88-92, 95-98, 100, 103

```

RAW SEQUENCE LISTING

DATE: 03/02/2007

PATENT APPLICATION: US/10/690,396A

TIME: 11:03:19

Input Set : A:\pto.da.txt

Output Set: N:\CRF4\03012007\J690396A.raw

193 <223> OTHER INFORMATION: Xaa = Amino Acid

195 <220> FEATURE:

196 <223> OTHER INFORMATION: Synthesized Nucleotide Sequence

198 <400> SEQUENCE: 7

```

W--> 199 Xaa Xaa Ser Xaa Pro Xaa Val Xaa Pro Leu Val Ser Xaa Xaa Xaa Pro
      200 1          5          10          15
W--> 201 Leu Ser Xaa Xaa Xaa Leu Val Ala Xaa Gly Xaa Leu Ala Arg Xaa Xaa
      202          20          25          30
W--> 203 Leu Pro Xaa Thr Xaa Ser Xaa Thr Xaa Xaa Xaa Xaa Xaa Xaa Thr Xaa
      204          35          40          45
W--> 205 Val Xaa Xaa Gly Xaa Xaa Thr Xaa Pro Thr Leu Xaa Thr Gly Gly Xaa
      206          50          55          60
W--> 207 Xaa Leu Ala Thr Ser Xaa Val Xaa Leu Ser Pro Xaa Xaa Xaa Leu Xaa
      208 65          70          75          80
W--> 209 Gly Ser Xaa Xaa Xaa Leu Val Xaa Xaa Xaa Xaa Xaa Gly Gly Xaa Xaa
      210          85          90          95
W--> 211 Xaa Xaa Leu Xaa Val Pro Xaa Pro
      212          100

```

RAW SEQUENCE LISTING ERROR SUMMARY
PATENT APPLICATION: US/10/690,396A

DATE: 03/02/2007
TIME: 11:03:20

Input Set : A:\pto.da.txt
Output Set: N:\CRF4\03012007\J690396A.raw

Please Note:

Use of n and/or Xaa have been detected in the Sequence Listing. Please review the Sequence Listing to ensure that a corresponding explanation is presented in the <220> to <223> fields of each sequence which presents at least one n or Xaa.

Seq#:3; N Pos. 3,6,9,12,15,18,21,24,27,30,33,36,39,42,45,48,51,54,57,60,63
Seq#:3; N Pos. 66,69,72,75,78,81,84,87,90,93,96,99,102,105,108,111,114,117
Seq#:3; N Pos. 120,123,126,129,132,135,138,141,144,147,150,153,156,159,162
Seq#:3; N Pos. 165,168,171,174,177,180,183,186,189,192,195,198,201,204,207
Seq#:3; N Pos. 210,213,216,219,222,225,228,231,234,237,240,243,246,249,252
Seq#:3; N Pos. 255,258,261,264,267,270,273,276,279,282,285,288,291,294,297
Seq#:3; N Pos. 300,303,306,309,312
Seq#:7; Xaa Pos. 1,2,4,6,8,13,14,15,19,20,21,25,27,31,32,35,37,39,41,42,43
Seq#:7; Xaa Pos. 44,45,46,48,50,51,53,54,56,60,64,65,70,72,76,77,78,80,83
Seq#:7; Xaa Pos. 84,85,88,89,90,91,92,95,96,97,98,100,103

VERIFICATION SUMMARY

DATE: 03/02/2007

PATENT APPLICATION: US/10/690,396A

TIME: 11:03:20

Input Set : A:\pto.da.txt

Output Set: N:\CRF4\03012007\J690396A.raw

L:18 M:270 C: Current Application Number differs, Replaced Current Application Number

L:141 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:3 after pos.:0
L:142 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:3 after pos.:60
L:143 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:3 after pos.:120
L:144 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:3 after pos.:180
L:145 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:3 after pos.:240
L:146 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:3 after pos.:300
L:199 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:7 after pos.:0
L:201 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:7 after pos.:16
L:203 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:7 after pos.:32
L:205 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:7 after pos.:48
L:207 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:7 after pos.:64
L:209 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:7 after pos.:80
L:211 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:7 after pos.:96

**Raw Sequence Listing before editing,
for reference only**



IFW16

RAW SEQUENCE LISTING

DATE: 02/27/2007

PATENT APPLICATION: US/10/690,396A

TIME: 08:47:26

Input Set : A:\STRATAG.7C2DV2C1 SUB SEQ LIST.TXT

Output Set: N:\CRF4\02272007\J690396A.raw

W--> 2 STRATAG 7C2DV2C1 SUB SEQ LIST.TXT → *deleted*

5 <110> APPLICANT: Wigler, Michael H.
6 Sorge, Joseph A.

8 <120> TITLE OF INVENTION: Method for generating libraries of
9 antibody genes comprising amplification of diverse antibody
10 DNAs and methods for using these libraries for the
11 production of diverse antigen combining molecules

16 <130> FILE REFERENCE: STRATAG.7C2DV2C1

C--> 18 <140> CURRENT APPLICATION NUMBER: US/10/690,396A

19 <141> CURRENT FILING DATE: 2003-10-20

21 <150> PRIOR APPLICATION NUMBER: US 08/315,269

22 <151> PRIOR FILING DATE: 1994-09-29

24 <150> PRIOR APPLICATION NUMBER: US 07/919,370

25 <151> PRIOR FILING DATE: 1992-07-23

27 <150> PRIOR APPLICATION NUMBER: US 07/464,350

28 <151> PRIOR FILING DATE: 1990-01-11

30 <150> PRIOR APPLICATION NUMBER: US 08/997,195

31 <151> PRIOR FILING DATE: 1997-12-23

33 <150> PRIOR APPLICATION NUMBER: US 09/439,732

34 <151> PRIOR FILING DATE: 1999-11-12

36 <150> PRIOR APPLICATION NUMBER: PCT/US91/00209

37 <151> PRIOR FILING DATE: 2001-04-26

39 <160> NUMBER OF SEQ ID NOS: 7

41 <170> SOFTWARE: FastSEQ for Windows Version 4.0

Does Not Comply
Corrected Diskette Needed
Cp9-1,2

ERRORED SEQUENCES

183 <210> SEQ ID NO: 7

184 <211> LENGTH: 104

185 <212> TYPE: PRT

186 <213> ORGANISM: Artificial Sequence

188 <220> FEATURE:

189 <221> NAME/KEY: VARIANT

190 <222> LOCATION: 1, 2, 4, 6, 8, 13-15, 19-21, 25, 27, 31, 32, 35, 37, 39,
191 41-46, 48, 50, 51, 53, 54, 56, 60, 64, 65, 70, 72, 76-78,
192 80, 83-85, 88-92, 95-98, 100, 103

193 <223> OTHER INFORMATION: Xaa = Amino Acid

195 <220> FEATURE:

196 <223> OTHER INFORMATION: Synthesized Nucleotide Sequence

198 <400> SEQUENCE: 7

W--> 199 Xaa Xaa Ser Xaa Pro Xaa Val Xaa Pro Leu Val Ser Xaa Xaa Xaa Pro
200 1 5 10 15

RAW SEQUENCE LISTING

DATE: 02/27/2007

PATENT APPLICATION: US/10/690,396A

TIME: 08:47:26

Input Set : A:\STRATAG.7C2DV2C1 SUB SEQ LIST.TXT

Output Set: N:\CRF4\02272007\J690396A.raw

201 Leu Ser Xaa Xaa Xaa Leu Val Ala Xaa Gly Xaa Leu Ala Arg Xaa Xaa
202 20 25 30
203 Leu Pro Xaa Thr Xaa Ser Xaa Thr Xaa Xaa Xaa Xaa Xaa Xaa Thr Xaa
204 35 40 45
205 Val Xaa Xaa Gly Xaa Xaa Thr Xaa Pro Thr Leu Xaa Thr Gly Gly Xaa
206 50 55 60
207 Xaa Leu Ala Thr Ser Xaa Val Xaa Leu Ser Pro Xaa Xaa Xaa Leu Xaa
208 65 70 75 80
209 Gly Ser Xaa Xaa Xaa Leu Val Xaa Xaa Xaa Xaa Gly Gly Xaa Xaa
210 85 90 95
211 Xaa Xaa Leu Xaa Val Pro Xaa Pro
212 100

E--> 217 3



deleted

VERIFICATION SUMMARY

DATE: 02/27/2007

PATENT APPLICATION: US/10/690,396A

TIME: 08:47:27

Input Set : A:\STRATAG.7C2DV2C1 SUB SEQ LIST.TXT

Output Set: N:\CRF4\02272007\J690396A.raw

L:2 M:259 W: Allowed number of lines exceeded, (1) GENERAL INFORMATION:
 L:18 M:270 C: Current Application Number differs, Replaced Current Application Number
 L:141 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:3 after pos.:0
 M:341 Repeated in SeqNo=3
 L:199 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:7 after pos.:0
 M:341 Repeated in SeqNo=7
 L:217 M:332 E: (32) Invalid/Missing Amino Acid Numbering, SEQ ID:7